

**SELECTORS AND 3- AND 10-CAPACITY SELECTOR SHELVES
NO. 1, 350A, 355A, 35E97 AND 702A PBX OFFICES
EQUIPMENT DESIGN REQUIREMENTS
STEP-BY-STEP SYSTEMS**

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the manufacture and installation of local and toll selectors and 3- and 10-capacity selector shelves for use in No. 1, 350A, 355A, and 35E97 offices and No. 702A PBXs.

1.02 This specification is reissued:

- (a) To incorporate Addendum, Issue 1.
- (b) To expand general information for the 3-capacity selector shelf mounted on 23-inch relay rack.

Capacity

1.03 The capacities of the ten selector shelves and the frame mounting spaces required are as follows.

| | SELECTORS PER SHELF | UNIVERSAL FRAMES MOUNTING SPACES PER SHELF |
|-------------------|------------------------|--|
| Single-Shelf Unit | 10 | 6 |
| Double-Shelf Unit | 10 | *30-3/8 Inches |

* Reduced from 13 spaces through the use of universal frames with additional drillings in the uprights.

1.04 The capacity of the 3-selector shelf and relay rack mounting spaces required are as follows:

| | SELECTORS PER SHELF | NO. OF 2-INCH MTG PLATE SPACES |
|-------------------|------------------------|--------------------------------------|
| Double-Shelf Unit | 3 | 16 |

Description

1.05 This specification covers the shelf equipment for all 3- and 10-capacity shelves which mount local, toll, or intertoll selectors of whatever variety in No. 1, 350A, 355A, and 35E97 offices and in No. 702A PBXs. The association of these equipments with other equipments in a particular office or PBX is covered in the general specification for that office.

1.06 All of the 10-capacity selector shelf units in this specification use universal shelf frameworks 6 feet 1/2-inch long with the 3-capacity selector shelf unit mounted on 7 foot 0-inch, 9 foot 0-inch or 11 foot 6-inch relay rack, 23 inches wide.

1.07 There are three general classes of shelf units, as follows:

(a) Ten-capacity single-shelf units arranged to mount all varieties of local and toll selectors which use a short mounting plate, namely, local 3-wire, 4-wire, digit absorbing, dual, restricted service, and branch office, toll preceding, incoming, intermediate, or intertoll.

(b) Ten-capacity double-shelf units arranged to mount all varieties of selectors which use a long mounting plate, namely, toll transmission with or without coin control, A-B toll transmission with or without digit absorbing, and intertoll through and transmission. A double shelf for selector repeaters is available as covered in J38806.

(c) Three-capacity double-shelf unit to mount on relay rack arranged to mount toll transmission selectors.

1.08 The 6-foot 3/8-inch shelf is arranged to mount ten selectors between alarm and miscellaneous equipment on the left, and one or two terminal strips and their jumper field on

the right. All miscellaneous equipment at the left of each shelf is arranged on horizontal mounting plates or panels, each 1 or 2 inches wide. A terminal strip is provided as part of the miscellaneous equipment for interconnecting alarm and miscellaneous shelf wiring to associated switchboard cable. A fuse panel is provided on each shelf.

1.09 The relay rack 3-capacity shelf unit is arranged to mount three selectors at the left, a mounting plate at the right to mount alarm and miscellaneous equipment, and terminal strips with their jumper fields on the right below the mounting plate.

1.10 All shelves are equipped before shipment with selector jacks, selector banks, terminal strips, and miscellaneous and alarm equipment. The selector switch units, ordered separately, are usually mounted on the shelves before shipment.

1.11 On the 10-capacity shelf, with the exception of the bank multiple, all local shelf wiring, including wiring from switch jacks and from miscellaneous alarm equipment to the miscellaneous terminal strip, is run as loose wiring. This wiring is supported by fanning rings provided behind each switch position and behind the mounting plate support bars.

1.12 On the 3-capacity shelf, with the exception of the bank multiple, all local shelf wiring, including wiring from switch jacks and from miscellaneous alarm equipment to the miscellaneous terminal strips, is run as a unit local cable. The unit local cables is supported by cable brackets.

1.13 Two classes of service are obtainable on the same local shelf as follows.

(a) Free and restricted scope services may be provided on the same selector shelf by using selectors equipped with normal post springs which operate on the levels to which service may be restricted. Whether or not the individual call is to be restricted depends upon the condition of the associated line finder. If all calls originating in a line finder group are to be denied access to a particular level on the first selector, the normal post springs on the selector make the selector step to the eleventh rotary step and send back a busy signal to the

originating subscriber. However, if only a portion of the lines of a line finder group are to be denied access to one or more selector levels, these lines are grouped by levels on the finder banks; the normal post springs on the finder, in conjunction with the normal post springs on the selector, cause the selector to return a busy signal to a subscriber who is restricted if he dials a restricted level on the selector. This method of operation requires an additional conductor (RS) between the finder and selector.

(b) Coin and noncoin, digit-absorbing, and service code selectors may be mounted on the same shelf by means of certain of the bank multiple assemblies per J32310P. These provide for splitting the bank multiple between coin and noncoin switches on levels 1 and 0 to provide for separate groups of trunks to the LD and DSA operators, for coin and noncoin selectors. The trunks for the first and zero levels of this bank multiple assembly are brought out to terminal strips from both ends of the bank multiple. If, for example, the trunks of the zero level are cut between the banks of the coin and noncoin switches, separate groups of coin and noncoin trunks are obtained from this level. The details of modifying the bank multiple by the installer to attain this result are covered on ED-30631-01. The bank assembly per J32310P may be used for combining any other combination of selectors where splits in the multiples of the first and zero levels only are desired.

1.14 *Service Code Trains:* Where service code selectors are required, it should be noted that if trunks requiring class-of-service tone discrimination are taken from a level of these selectors, 4-wire banks for these, as well as for the first selectors, will be required.

1.15 *Dial Tone Modification*

(a) When offices are arranged for noncommon control TOUCH-TONE® calling or common control, a new dial tone supply is necessary to insure noninterference of dial tone with the frequencies generated by the TOUCH-TONE subset. The new dial tone is a relay rack unit per J86829B-(), Power Systems Specification TOUCH-TONE Supply for Step-by-Step Offices, 807D Tone Power Supply.

(b) The unit consists of one 1VA amplifier unit and four 35VA amplifier units. The 1VA amplifier serves a maximum of four 35VA amplifiers and is required all the time. Each 35VA amplifier serves 48 first selector shelves and is supplied as required. From each 35VA amplifier there are six tone supply leads, each one capable of serving eight first selector shelves maximum. The unequipped first selector shelves shall be counted as equipped first selector shelves. This assumption will prevent, where possible, the doubling of tone supply leads to the same bay.

(c) The tone supply lead is run in shielded cable and the shield is grounded at the 35VA amplifier and at the first shelf termination of each bay. Both the lead and grounding of the shield is done on the 98A repeat coil on the shelf. The tone lead is then multiplied to the other shelves as required (including unequipped shelves units) in shielded cable. The shielding and shield grounding is required to prevent interference between talking paths leads and the dial tone supply lead as they parallel each other in the different lead runs.

(d) Although the new dial tone is necessary for noncommon control TOUCH-TONE calling or common control, those selectors associated with line groups serving the aforementioned must have their dial tone supply removed. The reason is that in those cases dial tone is supplied to the subscriber by either the originating register in common control or TOUCH-TONE converters in noncommon control. There are two conditions encountered when removing dial tone from the first selectors and each one depends on the shelf condition.

(e) When a shelf is fully equipped with first selectors associated with ~~line groups of~~ TOUCH-TONE subscribers only, or in offices converted from partial TOUCH-TONE to common control, the dial tone supply is removed from the selector on a shelf basis.

(f) When a shelf is not fully equipped with selectors serving line groups associated with TOUCH-TONE calling subscribers, the dial tone supply is individually removed from each of these selectors.

(g) For the purpose of distinction, dial tone existing prior to the new TOUCH-TONE type is referred to as low tone-type dial tone in the drawings associated with this specification.

Subdivisions of Equipment

Switches

- ED-30200-02 — Local and Incoming Selector — No. 1, 350A, or 355A Offices and No. 702A PBX
- ED-30962-01 — A-B Toll Transmission Selector — With Repeating Coil Cut-out — Repeater Dialing Toll Train — No. 1 Offices
- ED-30976-01 — Selector — 3- or 4-Wire — Arranged for Peg Count on Cut-Through, To Absorb Digits Once or Repeatedly, and To Return Overflow Signal on Specified Levels — 2-Party Message Rate Service in No. 1 or 350A Offices — Timed Release on Permanent Signal in 350A Offices — No. 1, 350A, or 355A Offices
- ED-30999-01 — Operator Incoming Selector — Arranged for Peg Count — Absorb Digits Once or Repeatedly — Return Overflow Signal and/or Stop Dial Signal on Specified Levels — 355A Offices
- ED-31241-02 — A-B Toll Preceding Selector — For Use in Completing A-B Toll Calls — No. 1, 350A, or 355A Offices
- ED-31411-02 — Completing Selector for Delayed Calls From Local or Central "A" Switchboard — With or Without Digit Absorbing — No. 1 or 350A Offices
- ED-31646-01 — A-B Toll Transmission Selector — Repeated Dialing Toll Train — No. 1 Offices
- ED-31681-03 — Toll Transmission Selector — With Option for Absorbing Any First Digit — No. 1, 350A, or 355A Offices

- ED-31723-01 — A-B Toll Transmission Selector — With or Without Digit Absorbing on Specified Levels — Repeating Coil Cutout and Coin Control — Loop Dialing Toll Train — No. 1, 350A, or 355A Offices
- ED-31727-01 — Branch Office Selector — For Use With Selector Repeater Circuits — 350A or 355A Offices
- ED-31744-01 — Toll Incoming or Toll Intermediate Selector — No. 1, 350A, or 355A Offices
- ED-31745-01 — Toll Transmission Selector — With or Without Coin Control, Digit Absorbing, and Blocking Toll Train With Line and Paths-Busy Flashes — No. 1, 350A, or 355A Offices
- ED-31841-01 — Toll Transmission Selector — Reverse Battery Supervision — Simplex Controlled Ringing or Temporary Automatic Start of Ringing — Arranged for Digit Absorbing and Blocking Toll Train With Busy and Overflow Flashes — No. 1, 350A, or 355A Offices
- ED-31915-01 — Toll Intermediate or Toll Incoming Selector — With or Without Digit Absorbing and Blocking Until a Digit Is Absorbed — No. 1, 350A, or 355A Offices
- ED-32077-01 — Local or Incoming Selector — 3- or 4-Wire — Repeated Dialing Toll Preceding Selector, or 2-Party Message Rate Selector — With Digit Absorbing — With Permanent Signal Release — With Restricted Service — With Flash or Calls From Operator — No. 1, 350A, or 355A Offices
- ED-32183-01 — Digit-Absorbing Selector — 3- or 4-Wire — Local or Incoming — Arranged To Absorb One or Two Digits, To Return No-Such-Number Tone or Paths-Busy Tone on Specified Levels, for Peg Count on Cut-Through, and Timed Release on Permanent Signal — No. 1, 350A, or 355A Offices
- ED-33001-01 — Toll Preceding Selector — For Use in Completing A-B Toll Calls — Arranged for Peg Count on Cut-Through — To Absorb Digits Once and/or Repeatedly and To Return Busy Tone on Specified Levels — No. 1, 350A, or 355A Offices
- ED-33003-01 — Local, Incoming, or 2-Party Message Rate Selector — 3- or 4-Wire — Arranged To Restrict Service Over Any Specified Levels for Peg Count on Cut-Through, and for Timed Release on Permanent Signal or Busy Flash on Calls From Operator — No. 1, 350A, or 355A Offices
- ED-33027-01 — Code Selector — No. 1, 350A, 355A, or 360A — Arranged To Absorb Digits Repeatedly and To Restrict Service Until a Digit Is Absorbed
- ED-55062-01 — Combined Intertoll and Toll Transmission Selector — Arranged To Cut Out Repeating Coil on Calls to Intertoll Trunks or Selectors — With or Without Digit Absorbing
- ED-55242-01 — Intertoll First, Auxiliary, Intermediate, or Through Selector — With or Without Digit Absorbing
- ED-64470-01 — Intertoll Selector
- ED-66256-02 — Restricted Service Selector — No. 702A PBX
- ED-95898-01 — Local or Incoming Code Selector — Arranged To Absorb Digits Once Only and/or Repeatedly and To Restrict Service Until a Digit Is Absorbed

Shelf Units

- J32310M (AT&TCo Std) — Single-Selector Shelf — Ten Capacity — For Use in No. 1, 350A, and 355A Offices and No. 702A PBXs (Arranged for Solderless Wrapped Connections)
- J32310N (AT&TCo Std) — Double-Selector Shelf — Ten Capacity — For Use in No. 1, 350A, and 355A Offices (Arranged for Solderless Wrapped Connections)
- J32310P (AT&TCo Std) — Selector Bank Multiple Equipment Without DTA (Solderless Banks and Terminal Strips)
- J32310R (AT&TCo Std) — Double-Selector Shelf — Three Capacity — For Use in No. 1, 350A, and 35E97 Offices (Arranged for Solderless Wrapped Connections)

2. SUPPLEMENTARY INFORMATION

- AA128.006 — List of General Equipment Requirements Sections
- 814-000-000 — Step-by-Step Systems Index
- J32313 (814-400-150) — Multipling of Selector Trunks
- J38805 (814-005-151) — General Specifications for No. 355A Offices
- J38806 (814-402-150) — Selector Repeaters for No. 350A and 355A Offices
- J39206 (814-005-150) — General Specification for No. 1 and 350A Offices
- J39210 (814-008-150) — No. 35E97 Dial Offices
- J61525 (AA261.017) — No. 1, 3, and 3B Toll Switchboards — Intertoll Dialing Equipment
- X-67142 — Manufacturing Testing Requirements for Step-by-Step Selectors and Connectors

Current Drain Data

- SD-31359-02 — No. 1 Office
- SD-31364-02 — No. 350A Office
- SD-31780-02 — No. 355A Office
- SD-32325-02 — No. 35E97 Office
- SD-66382-01 — No. 702A PBX Office

3. DRAWINGS

WECO J drawings should be ordered by referring to the prefix and base number and requesting the current dash (-) number.

- SD-31359-01 — No. 1 Office — Keysheet
- SD-31364-01 — No. 350A Office — Keysheet
- SD-31780-01 — No. 355A Office — Keysheet
- SD-32123-01 — Selector Bank Multiple
- SD-32325-01 — No. 35E97 Office — Keysheet
- SD-66382-01 — No. 702A PBX Office — Keysheet
- ED-30631-01 — Modification of Selector Bank Multiple Using Split Bank Multiple Assemblies
- ED-30962-02 — A-B Toll Preceding Selector With Repeating Coil Cutout — Repeated Dialing Toll Train
- ED-31178-() — Universal Switch Frame Assembly
- ED-31265-10 — Typical Shelf Wiring
- ED-31275-10 — Test Talking Line and Battery Jack Equipment for No. 1, 350A Offices and 702A PBXs
- ED-31276-10 — Auxiliary Alarm and Testing Equipment for 355A Offices
- ED-31646-02 — A-B Toll Preceding Selector — Repeated Dialing Toll Train
- ED-32283-10 — Selector Shelf Equipment — Stamping of Auxiliary Terminal Strips
- ED-32360-() — Switchboard Cabling Plan and Method of Running Power Feeders
- ED-64597-10 — Intertoll Dialing, Miscellaneous Equipment for Switch Frames
- ED-91837-() — Relay Rack Assembly — Angle Type — 1-Foot, 0-Inch Sheet Metal Base — 7 Feet, 0 Inches, 9 Feet, 0 Inches, and 11 Feet, 6 Inches in Height
- ED-95131-10 — Modular Fuse Blocks and Accessories for Fuse Panel Arrangements
- J32310M-() — Single-Selector Shelf — Ten Capacity — For Use in No. 1, 350A, and 355A Offices and No. 702A PBXs (Arranged for Solderless Wrapped Connections)

- J32310N-() — Double-Selector Shelf — Ten Capacity — For Use in No. 1, 350A, and 355A Offices (Arranged for Solderless Wrapped Connections)
- J32310P-() — Selector Bank Multiple Equipment Without DTA (Solderless Banks and Terminal Strips)
- J32310R-() — Double-Selector Shelf — Three Capacity — For Use in No. 1, 350A, and 355A Offices

4. EQUIPMENT

Switches

- ED-30200-02* — *Local and Incoming Selector — No. 1, 350A, or 355A Offices and No. 702A PBXs*
- ED-30962-01* — *A-B Toll Transmission Selector — With Repeating Coil Cutout — Repeated Dialing Toll Train — No. 1 Offices*

Note

- A. If additions of these selectors are required in existing offices, they shall be mounted on a job basis on the lower shelf, and the associated relay equipment per ED-30962-02, on the upper shelf of a double-selector shelf.

- ED-30976-01* — *Selector — 3- or 4-Wire — Arranged for Peg Count on Cut-Through, To Absorb Digits Once or Repeatedly, and To Return Overflow Signal on Specified Levels — 2-Party Message Rate Service in No. 1 or 350A Offices — Timed Release on Permanent Signal in No. 350A Office — No. 1, 350A, or 355A Offices*
- ED-30999-01* — *Operator Incoming Selector — Arranged for Peg Count — Absorb Digits Once or Repeatedly— Return Overflow Signal and/or Stop Dial Signal on Specified Levels — No. 355A Offices*
- ED-31241-02* — *A-B Toll Preceding Selector — For Use in Completing A-B Toll Calls — No. 1, 350A, or 355A Offices*

ED-31411-02 — *Completing Selector for Delayed Calls From Local or Central "A" Switchboard — With or Without Digit Absorbing — No. 1 or 350A Offices*

ED-31646-01 — *A-B Toll Transmission Selector — Repeated Dialing Toll Train — No. 1 Offices*

Note

- A. If additions of these selectors are required in existing offices, they shall be mounted on a job basis on the lower shelf, and the associated relay equipment per ED-31646-02 on the upper shelf, of a double-selector shelf.

ED-31681-03 — *Toll Transmission Selector — With Option for Absorbing Any First Digit — No. 1, 350A, or 355A Offices*

ED-31723-01 — *A-B Toll Transmission Selector — With or Without Digit Absorbing on Specified Levels — Repeating Coil Cutout and Coin Control — Loop Dialing Toll Train — No. 1, 350A, or 355A Offices*

ED-31727-01 — *Branch Office Selector—For Use With Selector Repeater Circuits — 350A or 355A Offices*

ED-31744-01 — *Toll Incoming or Toll Intermediate Selector — No. 1, 350A, or 355A Offices*

ED-31745-01 — *Toll Transmission Selector — With or Without Coin Control, Digit Absorbing, and Blocking — Toll Train With Line and Paths-Busy Flashes — No. 1, 350A, or 355A Offices*

ED-31841-01 — *Toll Transmission Selector — Reverse Battery Supervision — Simplex Controlled Ringing or Temporary Automatic Start of Ringing — Arranged for Digit Absorbing and Blocking Toll Train With Busy and Overflow Flashes — No. 1, 350A, or 355A Offices*

ED-31915-01 — *Toll Intermediate or Toll Incoming Selector — With or Without Digit Absorbing and Blocking Until a Digit Is Absorbed — No. 1, 350A, or 355A Offices*

ED-32077-01 — *Local or Incoming Selector — 3- or 4-Wire — Repeated Dialing Toll Preceding Selector, or 2-Party Message Rate Selector — With Digit Absorbing — With Permanent Signal Release — With Restricted Service — Busy Flash on Calls From Operator — No. 1, 350A, or 355A Offices*

ED-32183-01 — *Digit-Absorbing Selector — 3- or 4-Wire — Local or Incoming — Arranged To Absorb One or Two Digits, To Return No-Such-Number Tone or Paths-Busy Tone on Specified Levels for Peg Count on Cut-Through and Timed Release on Permanent Signal — No. 1, 350A, or 355A Offices*

ED-33001-01 — *Toll Preceding Selector — For Use in Completing A-B Toll Calls — Arranged for Peg Count on Cut-Through — To Absorb Digits Once and/or Repeatedly and To Return Busy Tone on Specified Levels — No. 1, 350A, or 355A Offices*

ED-33003-01 — *Local, Incoming, or 2-Party Message Rate Selector — 3- or 4-Wire — Arranged to Restrict Service Over any Specified Levels for Peg Count on Cut-Through—Timed Release on Permanent Signal or Busy Flash on Calls From Operator — No. 1, 350A, or 355A Offices*

ED-33027-01 — *Code Selector — No. 1, 350A, 355A, or 360A — Arranged To Absorb Digits Repeatedly and To Restrict Service Until a Digit Is Absorbed*

ED-55062-01 — *Combined Intertoll and Toll Transmission Selector — Arranged to Cut Out Repeating Coil on Calls to Intertoll Trunks or Selectors — With or Without Digit Absorbing*

ED-55242-01 — *Intertoll First, Auxiliary, Intermediate, or Through Selector — With or Without Digit Absorbing*

ED-64470-01 — *Intertoll Selector*

ED-66256-02 — *Restricted Service Selector — No. 702A PBXs*

ED-95898-01 — *Local or Incoming Code Selector—Arranged To Absorb Digits Once Only and/or Repeatedly and To Restrict Service Until a Digit Is Absorbed*

Shelf Units

J32310M (AT&TCo Std) — *Single-Selector Shelf — Ten Capacity — For Use in No. 1, 350A, and 355A Offices and No. 702A PBXs (See Note G) (Arranged for Solderless Wrapped Connections)*

Equipment — J32310M-()
Shelf Wiring — ED-31265-10

List 1 — Framework, assembly, wiring, and common equipment for one shelf of ten local, incoming, toll incoming, toll intermediate, dual, or intertoll selectors, less selectors and banks.

SEE
WIRE EQUIP NOTES

| | | | | |
|--|----|----|-----|------------------------------|
| Sel Ckt, Jk Wiring, Universal for SD-30200-01, SD-30976-01, SD-30999-01, SD-31241-01, SD-31727-01, SD-31744-01, SD-31915-01, SD-32077-01, SD-32183-01, SD-33001-01, SD-33003-01, SD-33027-01, SD-55242-01, SD-64470-01, SD-66256-01, and SD-95898-01 | 10 | 10 | N,O | A,B,C, D,F,H,I, J,L,M, |
| Sw Tbl Alm Ckt, SD-32043-01: | | | | |
| Rls Alm and Bat. Sup., Fig. 4 | 2 | 2 | | |
| Rls Alm Lamp Ckt, Fig. 5 | 1 | 1 | | |
| Fuse Alm Ckt, Fig. 6 | 1 | 1 | | |
| Busy Tone Key Universally Wired per Fig. 8, 9, 15 or 19 | 1 | 1 | | Q |
| Guard Lamp, Fig. 20 | 1 | 1 | | |

TABLE A

| SELECTORS | DESCRIPTION | OFFICE USED IN | | | | SHELF EQUIPMENT J32310M, LIST | BANK MULTIPLE EQUIPMENT J32310P, LIST |
|---------------|---|----------------|------|------|--------------|-------------------------------|---------------------------------------|
| | | NO. 1 | 350A | 355A | NO. 702A PBX | | |
| 3-Wire | | | | | | | |
| ED-30200-02 | Local or Incoming | X | X | X | X | 1 & 2 or 3 | 1 |
| ED-30976-01 | Digit Absorbing | X | X | X | | | |
| ED-31241-02 | A-B Preceding | X | X | X | | | |
| ED-32077-01 | Local or Incoming | X | X | X | | | |
| ED-32183-01 | Digit Absorbing | X | X | X | | | |
| ED-33001-01 | A-B Toll Preceding | X | X | X | | | |
| ED-33003-01 | Local or Incoming | X | X | X | | | |
| ED-33027-01 | Digit Absorbing | X | X | X | | | |
| ED-66256-02 | Restricted Service | | | | X | | |
| ED-95898-01 | Local or Incoming | X | X | X | | | |
| 4-Wire | | | | | | | |
| ED-30976-01 | Digit Absorbing | X | X | X | | 1 & 2 or 3 | 2 |
| ED-30999-01 | Operator Incoming | | | X | | | |
| ED-31727-01 | Branch Office | | X | X | | | |
| ED-31744-01 | Toll Intermediate or Incoming | X | X | X | | | |
| ED-31915-01 | Toll Intermediate or Incoming | X | X | X | | | |
| ED-32077-01 | Local or Incoming | X | X | X | | | |
| ED-32183-01 | Digit Absorbing | X | X | X | | | |
| ED-33003-01 | Local or Incoming | X | X | X | | | |
| ED-95898-01 | Local or Incoming | X | X | X | | 1 & 2 | 2 |
| ED-55242-01* | Intertoll, First, Auxiliary, Intermediate, or Through | X | X | X | | 1,4 | 5 |
| ED-64470-01* | Intertoll | X | X | X | | | |

* For application see J61525.

List 2 — Wiring and equipment per SD-32043-01, Fig. 1 and 21, required in addition to list 1 for permanent signal alarm without dial tone. (See Notes E and K.)

List 3 — Wiring and equipment per SD-32043-01, Fig. 1 with J option, and Fig. 2, required in addition to list 1 for permanent

signal alarm with dial tone. (See Notes E and R.)

List 4 — Wiring and equipment per SD-32043-01, Fig. 1, 7, and 21, required in addition to list 1 for permanent signal alarm without dial tone for intertoll selectors. (See Note O.)

List 8 — Assembly, wiring, and equipment per SD-32043-01, Fig. 22, F option, required in addition to list 1 to provide paths-busy tone supply on shelves equipped with such selectors as ED-32183-01, and arranged to return paths-busy tone on specified levels. (See Note S.)

List 9 — Assembly, wiring, and equipment per SD-32043-01, Fig. 23, required in addition to list 1 to provide code trunk transfer from local to CAMA office on shelves equipped with SD-95898-01 selectors. (See Note P.)

List 10 — Wiring and equipment per SD-32043-01, Fig. 1, H option only, required in addition to list 3 when automatic processing of first selector permanent signals is required (omit J option).

List 11 — Apparatus per SD-32043-01, Fig. 22, G option, omit F option, required in addition to list 8 for prevention of talk over busy tone. (See Note T.)

Notes

- A. Selectors will mount on shelves equipped with banks as indicated in Table A.
- B. The D resistor which is used in connection with the SP terminal of SD-55242-01 and shown in SD-32123-01, Fig. B, shall be mounted on relay rack on a miscellaneous basis when required.
- C. When this shelf is used in No. 1 and 350A offices or No. 702A PBXs, wiring per SD-32043-01, Fig. B and D shall be specified.
- D. When this shelf is used in No. 355A offices and selectors other than intertoll are used, wiring for ground cutoff per SD-32043-01, Fig. A and C shall be specified; otherwise, wiring for battery cutoff per SD-32043-01, Fig. A and F shall be specified.
- E. Where the ultimate number of first selectors will not exceed 200 and operation with permanent signal alarm circuit (PSB battery supply) is required, wiring from the PS relay to the PSB fuse shall be furnished when specified.
- F. When this shelf is equipped with selectors per SD-32077-01 or SD-33003-01, and restricted service on all lines is alike, a strap

between terminals 6 and 9 of each shelf jack shall be furnished by the shop when specified.

- G. The PS relays, heretofore part of the selector shelf equipments for No. 355A offices, are now located on the associated line finder unit. In cases where new selector shelves are required to work with line finder units without PS relays, for example, when finders are added to such groups, the associated PS relays shall be mounted on relay rack on a job basis.
- H. When this shelf is equipped with selectors per SD-30976-01 and J wiring, the multiplying of the leads between jack terminals 7 shall be omitted.
- I. When the shelf per list 1 is furnished for a No. 355A office, 344E jacks shall be specified.
- J. List 1 contains the shelf multiple wiring between terminals 3 of the shelf jacks. Where selectors requiring an M or R lead for operating the traffic registers are furnished, the wiring from the shelf jacks to the miscellaneous terminal strip shall be added in accordance with the cabling diagrams on the associated circuit drawings. (For example, see SD-30976-01.)
- K. When list 2 is required, wiring per SD-32043-01, Fig. 21, shall be specified for connection of shelf jack 15 to ground.
- L. When this shelf is equipped with selectors per SD-30976-01 or SD-32183-01 with lockout required and the PS relays are not equipped on the line finders, wiring for the PA lead per SD-30976-01, Fig. 1, ZL option, or SD-32183-01, Fig. 1, N option, shall be provided.
- M. When this shelf is equipped with selectors per SD-32077-01 or SD-33003-01 requiring lockout and the PS relays are not equipped on the line finders, wiring for the PA and PB leads per SD-32077-01, Fig. 2, or SD-33003-01, Fig. 2, shall be provided.
- N. When this shelf is used in No. 1 and 350A offices and is equipped with selectors per ED-32183-01, the jack wiring for the no-such-number tone lead or the LT1 lead shall be connected to jack terminal 7; otherwise it shall be connected to terminal 16.

- O. When the shelf per list 1 is furnished for intertoll selectors in No. 355A offices, ground cutoff for permanent signal alarm per SD-32043-01, Fig. E, shall be specified instead of Fig. A; otherwise, Fig. G for battery cutoff shall be specified instead of Fig. A.
- P. A TT key per SD-32043-01, Fig. 24, is required in addition to list 9 on a one per office basis and shall be a CIFY or any equivalent key as specified per job requirement.
- Q. Paths-busy flash only per Fig. 15 is required on intertoll selectors per SD-55242-01 when used for CAMA.
- R. Mount a Zierick No. 122 lug on the 98A repeating coil provided in list 3 to facilitate termination of TT2 tone supply leads where TOUCH-TONE type dial tone supply is transmitted through first selectors.
- S. List 7 and list 8 are not required for paths-busy indication for blocked calls on digit absorbing selectors in step-by-step common control offices with controlled outpulsing.
- T. When list 11 is provided, the selector busy tone equipment must also be arranged for this feature.

J32310N (AT&TCo Std) — Double-Selector Shelf — Ten Capacity — For Use in No. 1, 350A and 355A Offices (Arranged for Solderless Wrapped Connections)

Equipment — J32310N-()
Shelf Wiring — ED-31265-10

List 1 — Framework, assembly, wiring, and common equipment for one shelf of ten toll transmission intertoll, or completing selectors, less selectors and banks.

SEE
WIRE EQUIP NOTES

Sel Ckt Jk Wiring

Universal for

SD-31411-02, SD-31681-01,
SD-31723-01, SD-31745-01,
SD-31841-01, and
SD-55062-01

A,B,C,
D,E,F,
10 10 G,H

Sw Tbl Alm Ckt,
SD-32043-01:

Rls Alm and Bat. Sup.,
Fig. 4

2 2

Rls Alm Lamp Ckt, Fig. 5

1 1

Fuse Alm Ckt, Fig. 6

1 1

Busy Key, Fig. 9 or 19

1 1

Guard Lamp, Fig. 20

1 1

TABLE B

| SELECTORS | DESCRIPTION | OFFICE USED IN | | | SHELF EQUIPMENT J32310N OR J32310R* LIST | BANK MULTIPLE EQUIPMENT J32310P, LIST |
|---------------|--|----------------|------|------|--|---|
| | | NO. 1 | 350A | 355A | | |
| <i>4-Wire</i> | | | | | | |
| ED-31411-02 | Completing | X | X | X | 1 & 2 | 2 |
| ED-31681-03† | Toll Transmission | X | X | X | | |
| ED-31723-01 | A-B Toll Transmission | X | X | X | | |
| ED-31745-01 | Toll Transmission | X | X | X | | |
| ED-31841-01 | Toll Transmission | X | X | X | | |
| ED-55062-01† | Combined Intertoll and Toll Transmission | | | | No. 1 & 350A — 1 355A — See Note H | 5) |

* 3-position shelf

† For application see J61525.

List 2 — Wiring and equipment per SD-32043-01, Fig. 12, required in addition to list 1 for providing ringing supply for toll transmission selectors.

List 3 — Wiring and equipment required in addition to list 1 for permanent signal for intertoll selectors per SD-32043-01, Fig. 1 and 7.

List 4 — Wiring and equipment required in addition to list 1 for permanent signal for other than intertoll selectors per SD-32043-01, Fig. 1 and 7.

Notes

- A. Selectors will mount on shelves equipped with banks as indicated in Table B.
- B. When this shelf is used in No. 1 or 350A offices, wiring per SD-32043-01, Fig. B and D, shall be specified.
- C. When this shelf is equipped with selectors per SD-31723-01, which are not used with A-B toll preceding selectors, the adjustment of shelf jack springs 9 and 11 to make contact when the switch is removed from the shelf shall be omitted.
- D. When this shelf is used in 355A offices and selectors per SD-31723-01 or SD-31841-01 are used, wiring between shelf jacks 11 and 13, and 12 and 14 shall be furnished by the shop.
- E. When this shelf is used in 355A offices and selectors other than intertoll are used, wiring for ground cutoff per SD-32043-01, Fig. A and C, shall be specified; otherwise, wiring for battery cutoff per SD-32043-01, Fig. A and F, shall be specified.
- F. When the shelf per list 1 is furnished for 355A offices, 345E jacks shall be specified.
- G. When framework per ED-30589-01 or ED-31178-() having extra drillings in up-rights is specified for mounting the shelf, the shelf supports per list 1 shall be omitted.
- H. When the shelf per list 1 is furnished for intertoll selectors in 355A offices, ground cutoff for permanent signal alarm per SD-32043-01, Fig. E, shall be specified instead of Fig. A; otherwise, Fig. G for battery cutoff shall be specified instead of Fig. A.

J32310P (AT&T Co Std) — Selector Bank Multiple Equipment Without DTA (Solderless Banks and Terminal Strips)

Equipment and Local Cable — J32310P-()

List 1 — Assembly, wiring, and equipment for ten 300-point banks (41E upper and 42E lower) per SD-32123-01, Fig. 1, X and U options, with one 300-point bank multiple terminal strip (254A upper and 264C lower) and support.

List 2 — Assembly, wiring, and equipment for ten 400-point banks (51E upper and 42E lower) per SD-32123-01, Fig. 2, R and U options, with one 400-point bank multiple terminal strip (264B upper and 264C lower) and support.

List 3 — Assembly and equipment for one 300-point auxiliary outgoing terminal strip and supports.

List 4 — Assembly and equipment for one 400-point auxiliary outgoing terminal strip and supports.

List 5 — Assembly, wiring, and equipment for ten 400-point banks (51E upper and 62E lower) per SD-32123-01, Fig. 4, R and K options, with one 400-point bank multiple terminal strip (264B upper and 264C lower) and support.

List 6 — Assembly, wiring, and equipment for ten 300-point banks (41E upper and 42E lower) per SD-32123-01, Fig. 1, X and U options, with one 300-point bank multiple terminal strip (264A upper and 264C lower) and support and circuits 11-10 and 01-00 having additional terminations from bank 1 on an auxiliary terminal strip for two classes of service on one level. (See Note A.)

List 7 — Assembly, wiring, and equipment for ten 400-point banks (51E upper and 42E lower) per SD-32123-01, Fig. 2, R and U options, with one 400-point bank multiple terminal strip (264B upper and 264C lower) and support and circuits 11-10 and 01-00 having additional terminations from bank 1 on an auxiliary terminal strip for two classes of service on one level. (See Note A.)

List 8 — Bracket assembly for mounting auxiliary outgoing terminal strip at position of vacant selector shelf.

List 9 — Assembly, wiring, and equipment for three 400-point banks (51E upper and 42E lower) per SD-32123-01, Fig. 2, R and U options with one 400-point bank multiple terminal strip (264B upper and 264C lower).

Notes

- A. When banks per list 6 or 7 are used, the switches shall be assigned to the shelves taking into account the ultimate requirements per ED-30631-01.
- B. The Z resistor required when calls are to be routed over main office trunks per SD-32123-01, Fig. E or F, is furnished as part of relay rack unit J33017CF.

J32310R (AT&TCo Std) — Double-Selector Shelf — Three Capacity — Toll Transmission — For Use in No. 1, 350A and 355A Offices (Arranged for Solderless Wrapped Connections)

Equipment — J32310R-()

List 1 — Framework, assembly, wiring, and common equipment for one shelf of three toll transmission selectors, less selectors and banks.

| | WIRE | EQUIP | SEE NOTES |
|---|------|-------|--------------|
| Sel Ckt Universal Jk Wiring for SD-31841-01, Fig. 1, N, W and ZK Wrg | 3 | 3 | B,D,E |
| Sw Tbl Alm Ckt SD-32043-01: Perm Sig 1 and 7 | 1 | 1 | A,C |

| | WIRE | EQUIP | SEE NOTES |
|---------------------------------|------|-------|--------------|
| Rls Alm and Bat. Sup, Fig. 4 | 1 | 1 | A,C |
| Rls Alm Lamp Ckt, Fig. 5 | 1 | 1 | |
| Fuse Alm Ckt, Fig. 6 | 1 | 1 | |
| Busy Key, Fig. 9 | 1 | 1 | |
| Ringling Supply, Fig. 12 | 1 | 0 | |
| Guard Lamp, Fig. 20 | 1 | 1 | |

List 2 — Wiring and equipment per SD-32043-01, Fig. 12, and SD-31841-01, Fig. 1, ZL wiring only, omit ZK wiring, required in addition to list 1 to provide ringling supply for use when coin control trunk is not required. (See Note E.)

Notes

- A. When this shelf is used in No. 1 or 350A offices, wiring per SD-32043-01, Fig. B and D, shall be specified.
- B. When this shelf is used in 355A offices, SD-31841-01, X wiring only, shall be specified (omit N wiring).
- C. When this shelf is used in 355A offices, wiring for battery cutoff per SD-32043-01, Fig. A and F, shall be specified.
- D. When the shelf per list 1 is furnished for 355A offices, 345E jacks shall be specified.
- E. When list 2 is furnished and coin control feature is not required SD-31841-01, W wiring only shall be omitted.

Miscellaneous Equipment

J58801AB — Selector Shelf Unit — Arranged To Mount on 23-Inch Relay Rack — Capacity Three Selectors

5. GENERAL NOTES

List of A&M Only and Mfr Disc. Equipment

The following equipment has been replaced as indicated. Where A&M Only items appear, the issue numbers shown are those of the issue in which the rating was first applied.

| EQUIPMENT | RATING | DETAILS | | EQUIPMENT | RATING | DETAILS | |
|----------------------------------|-----------|------------------------|------------------------|------------|-----------|------------------------|------------------------|
| | | LAST SHOWN IN ISSUE | REPLACING EQUIPMENT | | | LAST SHOWN IN ISSUE | REPLACING EQUIPMENT |
| J32310A | Mfr Disc. | 5 | J32310J | J32310G | Mfr Disc. | 5 | J32310K |
| J32310B | Mfr Disc. | 5 | J32310K | J32310H | Mfr Disc. | 4 | J38304AA |
| J32310C | Mfr Disc. | 9 | J32310P | J32310J | Mfr Disc. | 9 | J32310M |
| L1,L3,L5, L8 to L15, & L17 | Mfr Disc. | 7 | — | L5 | Mfr Disc. | 7 | — |
| L2 & L4 | Mfr Disc. | 3 | J32310C,L8 & L9 | L8 | Mfr Disc. | 7 | J32310J,L11 |
| L6,L7 & L19 | Mfr Disc. | 8 | J32310L,L5, L6 & L7 | L10 | A&M Only | 8 | — |
| J32310D | Mfr Disc. | 5 | J32310J | J32310K | Mfr Disc. | 9 | J32310N |
| J32310E | Mfr Disc. | 5 | J32310K | L3 & L5 | Mfr Disc. | 8 | — |
| J32310F | Mfr Disc. | 5 | J32310J | J32310L | Mfr Disc. | 9 | J32310P |
| | | | | L2 & L4 | Mfr Disc. | 8 | — |
| | | | | J32310M,L5 | | | |
| | | | | & L6 | Mfr Disc. | 11 | — |
| | | | | & L7 | Mfr Disc. | 12 | — |

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